Pleural Decompression ($\geq$ PL5)

Clinical Indications:

1. Patients with suspected tension pneumothorax as evidenced by:
   a. Hypotension of SBP < 90, clinical signs of hypoperfusion, and at least one of the following:
      i. Jugular vein distention
      ii. Absent or decreased breath sounds on the affect side
      iii. Hyper-resonance to percussion on the affected side
      iv. Increased resistance when ventilating a patient
      v. Tracheal deviation away from the side of injury, which is a late sign
2. Patient in traumatic arrest with chest or abdominal trauma in whom resuscitation is indicated. These patients may require bilateral chest decompression even in the absence of the signs above.
3. Asthma patient in Cardiac Arrest, perform bilateral decompression

Contraindications:

1. None in the emergency setting.

Procedure:

1. Administer high flow oxygen.
2. Prepare equipment and don appropriate PPE.
3. Identify and prep the site:
   a. Lateral placement at the fourth intercostal space in the mid-axillary line.
   b. Locate the second intercostal space in the mid-clavicular line.
4. Prepare the site with chlorohexidine.
5. Insert the appropriate catheter perpendicular to the chest wall over the top of the inferior rib.
6. Advance the needle-catheter assembly through the parietal pleura until a pop is felt and air or blood exists the catheter. Advance only the catheter until the hub is in contact with the chest wall.
7. Remove the needle leaving the plastic catheter in place.
8. Secure the catheter hub to the chest wall.
9. A 60cc syringe may be used to aspirate air to confirm access.
10. Consider placing a one-way valve or creating a flutter valve from the finger of an exam glove. This should not delay the pleural decompression procedure.